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Household debt in Canada

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0 true zero or a value rounded to zero

0^s value rounded to 0 (zero) where a meaningful distinction exists between true zero and the value rounded

^{p} preliminary

^{r} revised

x suppressed to meet the confidentiality requirements of the *Statistics Act*

E use with caution

F too unreliable to be published

Highlights

In this issue

Household debt in Canada

- In 2009, two-thirds of households had outstanding debt that averaged $114,400.
- The incidence and amount of debt was higher in certain groups: younger homeowners, young families with children, the better-educated, and those with high household incomes. Over 60% of household debt was held by those under 45 years of age, and nearly one-half was held by couples with children.
- Household debt was more unequally distributed in populations that are considered more economically vulnerable, such as the less-educated, unattached individuals and renters. Conversely, debt was more equally distributed among the better-educated, couples with children, people with higher household incomes and mortgagees.
- Debt was higher in some regions—particularly in areas with higher housing costs. Households in British Columbia, Alberta and or Ontario owed, on average, between $124,700 and $157,700, compared to the national average of $114,400.
- Those who were more likely to correctly answer questions related to financial knowledge and had higher levels of self-assessed financial knowledge were also more likely to have higher levels of debt, even when other characteristics such as income, age and education were taken into account.

Perspectives

Household debt in Canada

Raj K. Chawla and Sharanjit Uppal

Many Canadians use debt to finance the purchase of a new home, acquire goods and services, or invest in education. In recent years, both mortgage debt and consumer debt have increased significantly (Chawla 2011). In 1980, the ratio of household debt to personal disposable income was 66%; that ratio recently passed the 150% figure (Statistics Canada 2011). This means that, in aggregate, households owed more than $1.50 for every dollar of disposable income. Household debt is therefore an increasingly important component of the finances of many Canadian families.

Although estimates of household debt are produced on a regular basis at the aggregate level, less is known about the individual characteristics of borrowers. The Survey of Financial Security (SFS), last conducted in 2005 (and prior to that, in 1999), is one of the primary sources of information on household finances. Correspondingly, studies examining the characteristics of Canadian borrowers are relatively rare (Brighton and Connidis 1982; Schwartz 1999).

The 2009 Canadian Financial Capability Survey (CFCS), supported by the Department of Finance Canada and Human Resources and Skills Development Canada, was conducted to assess the financial knowledge, saving patterns and credit use of Canadians. It included questions on the assets and debts of survey respondents (see *Data source and definitions*). The CFCS is the most current source of data on the characteristics of Canadian borrowers collected by Statistics Canada.

One aim of the survey was to collect information on financial literacy. The Task Force on Financial Literacy defined financial literacy as having the knowledge, skills

Data source and definitions

The analysis contained in this study is based on the 2009 Canadian Financial Capability Survey (CFCS). This survey was sponsored by Human Resources and Skills Development Canada, the Department of Finance Canada and the Financial Consumer Agency of Canada to assess Canadians' knowledge and abilities related to handling their finances, including budgeting, saving for retirement and children's postsecondary education, assets held, mortgages and consumer debts owed. The survey also collected information on the sources Canadians used to improve their financial knowledge and abilities to handle and improve their finances, day-to-day money management, and general financial planning.

The survey received responses from 15,519 persons 18 years of age and over covering sociodemographic and employment characteristics, sources of income, types of assets held and debts owed, and other behavioural characteristics. In the vast majority of cases (about 90%), survey respondents were those responsible for decisions related to ongoing household expenses and financial management. Most of this information was in terms of "yes/no" format with separate codes for "refused," "don't know," "not stated," and "valid skip." Quantitative information was sought on pre-tax total income, the household's total income, asset holdings, debts and liabilities, and wealth. Missing information on income was imputed whereas total assets, total debts and liabilities, and wealth were left with a separate code. Because of the low response rate to the assets portion of the survey (about 50%), assets-related variables are not used in this paper. Regarding the debt section, 84% of those in the sample provided usable data on their debt status and the amount of total debt outstanding. The valid response range for total debt was greater than $0 and less than or equal to $5 million.

The total household debt includes mortgage debt on principal residence, vacation home and other real estate, and consumer debt. The latter includes debt outstanding on credit cards, personal and home equity lines of credit, secured and unsecured loans from banks and other institutions, and unpaid bills (including taxes, rent, etc.).

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and confidence to make responsible financial decisions (Department of Finance Canada 2010).[1] In the CFCS, financial literacy was measured by 14 multiple-choice questions related to inflation and interest rates, credit reports and credit ratings, stocks and risk, insurance, taxation, debts and loans, and banking fees. These questions covered a wide range of financial topics and concepts indicative of financial literacy rather than just numerical ability. Importantly, "do not know" was always an option so respondents were not required to come up with an answer.

Given its focus on financial literacy, the CFCS can be used to examine whether the presence or amount of debt is correlated with financial knowledge—a new contribution to the Canadian literature on household debt.

This paper begins by examining the characteristics of debtors, focusing on two questions. Are debtors more likely to be found in certain types of households? Which households accumulate larger amounts of debt? The article then investigates whether debts are associated with the level of financial knowledge or indicators of financial attitudes. It also examines whether the relationships between debt and financial capability persist when other characteristics like income and educational attainment are taken into account.

Debt is the outcome of a contract between lenders and borrowers. Lending institutions will consider many factors in reviewing the loan applications of potential borrowers that affect both the incidence and level of debt. Such factors may include the level and stability of the applicant's income, his or her current debt load, collateral assets, and the market value of mortgaged properties, among others. Thus the level of outstanding debt is not just a function of borrowers' demands but also the lenders' assessment of borrowers' ability to repay or provide sufficient collateral assets.

Who are the borrowers?

In the CFCS, household debt is defined as mortgage debt on all residences and real estate, and consumer debt (including debt outstanding on credit cards, personal and home equity lines of credit, secured and unsecured loans from banks and other institutions, and unpaid bills). Of those who answered the debt questions, two-thirds said that they held at least one type of debt. In 2009, borrowers had an average of $114,400 per debtor[2] (Table 1).

Consistent with the life-cycle theory (Modigliani and Brumberg 1954; Friedman 1957; Browning and Crossley 2001), younger people and parents with children at home were more likely to hold debt. Individuals under 45 made up 45% of the population, but 54% of borrowers. Similarly, married people with children accounted for 30% of the overall population, but 39% of debtors. They were also more likely to have higher levels of debt. Couples with children held one-half of all household debt, with an average debt of $144,600, higher than the overall average of $114,400. Similarly, individuals under 45 held 61% of household debt, $129,200 on average.

Higher income was associated with an increased probability of holding debt and a higher debt load. Individuals who had a household income of at least $100,000 represented 31% of the population but 37% of those with debt. Moreover, individuals with higher household incomes had more debt, likely due to their greater debt-carrying capacity.[3] The total amount of household debt was particularly concentrated among those with at least $100,000 in household income as they accounted for 37% of all debtors but held 56% of all household debt (averaging $172,400 per borrower). In comparison, those who had a household income of at least $50,000 but less than $100,000 represented 38% of debtors but held 31% of household debt (averaging $95,400 per borrower), while those with less than $50,000 in household income held 13% (or $57,700 per borrower), even though they made up 25% of debtors.

Higher education levels were also associated with an increased probability of holding debt and higher average debt. Individuals with at least some postsecondary education comprised about one-half of the population but almost 60% of those with debt. And university graduates had an average debt that was 60% higher than those with less than postsecondary education—$145,400 compared to $90,900.

Although the distribution of borrowers across regions was similar to the distribution of the population as a whole, the amount owed was more concentrated in some regions. Debtors in British Columbia, Alberta and Ontario owed, on average, between $124,700 and $157,700, compared to the national average of $114,400. Together, households in these provinces held 3 out of 4 dollars of household debt in the country. The concentration of debt in these regions generally corresponds to higher real estate prices (TD Economics 2011).

Table 1 Distribution of borrowers and total debt across selected characteristics[1]

	All persons[1]	Borrowers	Total debt outstanding	Mean debt per borrower
Persons 18 and over ('000)	**20,731**	**13,773**	...	...
		%		$
Total	**100**	**100**	**100**	**114,400**
Age				
Under 45	45	54	61	129,200
45 to 64	37	38	34	102,800
65 and over	18	7	4	66,000
Household type				
Unattached individuals	15	10	6	63,000
Married couples only	34	30	28	105,200
Married couples with children and/or relatives	30	39	50	144,600
Lone parents	5	6	5	100,800
Others	16	14	12	94,000
Education[2]				
Less than postsecondary	47	41	33	90,900
Postsecondary: non-university	24	27	27	114,300
Postsecondary: university	28	31	40	145,400
Household income before tax				
Under $50,000	35	25	13	57,700
$50,000 to $99,999	34	38	31	95,400
$100,000 and over	31	37	56	172,400
Region				
Atlantic	7	7	4	69,300
Quebec	26	25	18	78,900
Ontario	37	37	40	124,700
Manitoba and Saskatchewan	7	6	5	84,900
Alberta	11	12	16	157,700
British Columbia	13	13	17	155,500
Tenure[2]				
Owner without a mortgage	34	20	11	64,000
Owner with a mortgage	39	58	82	161,200
Renter	26	22	7	36,200

1. Excludes those who did not answer the CFCS debt module.
2. Excludes those with missing information on this characteristic.
Source: Statistics Canada, Canadian Financial Capability Survey (CFCS), 2009.

A close relationship was also found between home ownership and debt as households with mortgages accounted for 39% of the population but 58% of debtors. Conversely, homeowners without a mortgage accounted for 34% of the population but 62% of all households without any debt.[4] Renters (26% of the population) were also less likely to hold debt, as they accounted for one-third of households without any debt.[5]

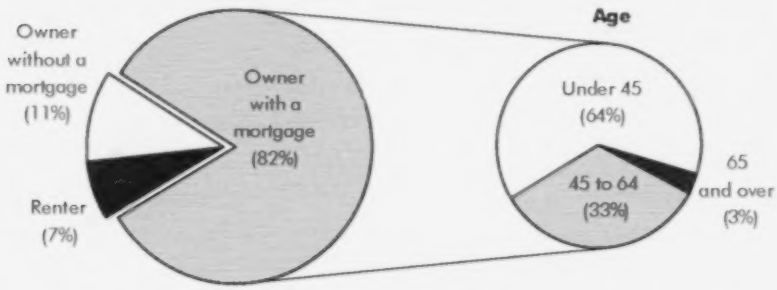
Debt was concentrated among mortgagees, who held 82% of outstanding debt (averaging $161,200 per debtor). Conversely, homeowners without a mortgage held 11% and renters 7% of total debt. Almost two-thirds of mortgagees were under 45 (Chart A), and this group held more than one-half of outstanding debt. The concentration of debt among younger mortgagees falls in line with the life-cycle theory of consumption. For many mortgagees, housing is both a consumption item and an investment tool, which can also be used as collateral to finance other needs (see *Mortgage and consumer debt*).

Dispersion of household debt

Even though some groups have higher average debt levels than others, this does not necessarily mean that debt is equally distributed *within* these groups. One method that can be used to look at debt dispersion is the Gini coefficient.[7] A higher value of the Gini coefficient indicates a greater concentration in the distribution—the situation where a relatively small proportion of borrowers hold a large proportion of total debt. Looking only at borrowers, the 2009 Gini coefficient of household debt was 0.611, compared with 0.372 for household income for the same group (Table 3). This means that debt is about 64% more concentrated among borrowing households than income in those same households. Moreover, debt was more concentrated than income among borrowers in all sociodemographic groups.

Nevertheless, household debt was more unequally distributed within some groups of borrowers than others. Groups with a higher Gini coefficient included those who had less than a postsecondary education, unattached individuals and people in 'other' family types, and those with less than $50,000

Chart A Distribution of total debt outstanding by tenure and age



Source: Statistics Canada, Canadian Financial Capability Survey, 2009.

in household income. Because individuals in these groups may have fewer resources to deal with debt payments, the most indebted within these groups may be more at risk of defaulting because they hold a large portion of the group debt.[5]

Conversely, debt was more equally distributed among youth, those with a postsecondary education and those who had at least $50,000 in family income (the latter hold a disproportionate amount of outstanding debt).

Mortgage and consumer debt

The 2009 CFCS did not collect information on the relative contribution of consumer debt and mortgage debt to overall household debt. However, it collected information on the presence of six types of consumer debts: student loans, payday loans, other loans (excluding the first two), credit card balances, personal and home equity lines of credit, and unpaid bills (e.g., taxes, rent).[6] The proportion of debtors with an outstanding credit card balance was 48%; 41% had an outstanding line of credit; 32% had other loans (e.g., personal loans); 18% had student loans; 3% had other debts (e.g., unpaid bills); and less than 1% had payday loans.

Debtors with a mortgage were more likely to have more than one source of consumer debt. For instance, 48% of those with just one type of consumer debt were mortgagees, compared with 65% among those who had at least three types of consumer debts.

As the homeowner ages, both mortgage and consumer debt decline. Among those under 45, the proportion of debtors with three or more consumer loans was 18%, but this proportion was 11% among those age 45 to 64 and just 3% among those at least 65 years of age (Table 2). Conversely, the proportion of debtors using only one source of consumer debt rose with age, from 39% among those under 45, to 62% among those at least 65 years of age.

Table 2 Distribution of debtors by age, tenure and number of consumer debts held

	Total	Owner without a mortgage	Owner with a mortgage	Renter
			'000	
All debtors	**13,773**	**2,705**	**8,022**	**3,009**
			%	
None	15	5	23	5
One	42	62	34	45
Two	28	27	27	33
At least three	14	7	16	17
			'000	
Under 45 years of age	7,481	871	4,577	1,998
			%	
None	14	5	19	4
One	39	56	34	41
Two	30	30	28	33
At least three	18	9	19	21
			'000	
45 to 64 years of age	5,286	1,367	3,094	825
			%	
None	18	4	26	8
One	43	63	34	45
Two	28	26	28	36
At least three	11	7	13	12
			'000	
65 years of age and over	1,006	466	352	185
			%	
None	18	6	39	8
One	62	70	43	74
Two	17	22	12	15
At least three	3	2	6	3

Source: Statistics Canada, Canadian Financial Capability Survey, 2009.

Table 3 Gini coefficients of household debt and income before tax among debtors

	Debt outstanding	Income before tax
	Gini coefficient	
Total	**0.611**	**0.372**
Age		
Under 45	0.583	0.347
45 to 64	0.614	0.382
65 and over	0.739	0.439
Household type		
Unattached individuals	0.669	0.387
Married couples only	0.612	0.342
Married couples with children and/or relatives	0.541	0.326
Lone parents	0.628	0.479
Others	0.710	0.394
Education[1]		
Less than postsecondary	0.635	0.382
Postsecondary: non-university	0.602	0.339
Postsecondary: university	0.572	0.352
Household income before tax		
Under $50,000	0.691	0.220
$50,000 to $99,999	0.553	0.113
$100,000 and over	0.559	0.228
Region		
Atlantic	0.560	0.368
Quebec	0.602	0.352
Ontario	0.589	0.364
Manitoba and Saskatchewan	0.585	0.349
Alberta	0.579	0.389
British Columbia	0.632	0.381
Tenure[1]		
Owner without a mortgage	0.747	0.408
Owner with a mortgage	0.485	0.329
Renter	0.693	0.391

1. Excludes those with missing information on this characteristic.
Source: Statistics Canada, Canadian Financial Capability Survey, 2009.

Table 3 also indicates that owners without a mortgage and renters had higher levels of debt inequality—even if differences between them are, by definition, mostly due to differences in consumer debt. This means that even though renters and mortgage-free homeowners held just 18% of household debt, most debt was concentrated among a relatively small proportion of the group.

Financial literacy

A large proportion of total household debt is held by people who are in the accumulation stages of their life cycle and/or who have higher-than-average incomes. Although their borrowing accords with life-cycle smoothing and has passed institutional lending standards, the extent to which borrowers account for the risk of interest rate increases, housing price declines, income interruptions or other such factors in their borrowing decisions is not known. To some extent, such risks may be mitigated by the financial literacy of borrowers since those who are more financially capable would be expected to better understand the risks associated with borrowing and how to best mitigate these risks.[9]

The question as to whether financial literacy is associated with varying debt metrics has been studied previously. Gerardi et al. (2010) found that lower financial literacy was associated with a higher probability of defaults and foreclosures in the U.S. housing market. Using data from the CFCS, Hurst (2011) examined the relationship between financial literacy and several indicators of financial insecurity, but found little relationship between the two. This paper contributes to the literature by examining the relationship between household debt levels and financial literacy.

The CFCS measured the financial literacy of survey respondents by asking a series of questions on financial principles and practices, which can be used to test whether the presence, type or amount of debt is correlated with financial literacy (see *Appendix* for the questions and answers). The financial literacy score is the sum of correct responses to these questions. In 2009, those who had some kind of debt obtained an average score of 72% on the financial quiz, compared to an average of 68% among those without debt (Table 4). The score was higher among those who had at least $250,000 in debt (representing about 13% of debtors), who averaged 76%, while those who had less than $50,000 in debt averaged 70%.

Because these questions comprise just one method of estimating the overall financial knowledge of individuals, other measures of financial literacy were examined. One alternative was to examine how respondents perceived their own financial knowledge. About one-half of those owing at least $250,000 reported themselves as "knowledgeable" or "very knowledgeable" in financial matters, compared to just over one-third

Table 4 Financial literacy across categories of household debt

	Household debt					
	No debt	Under $50,000	$50,000 to $149,999	$150,000 to $249,999	$250,000 and over	All debtors	All persons[1]
				%			
Average financial literacy	68	70	73	74	76	72	71
				% distribution of persons			
Level of financial knowledge	100	100	100	100	100	100	100
Very knowledgeable	6	6	6	5	9	6	6
Knowledgeable	32	28	30	30	36	30	30
Fairly knowledgeable	40	46	48	48	41	46	44
Not very knowledgeable	18	18	15	15	12	16	17
Not stated	5	2	2	2	3	2	3

1. Excludes those who did not answer the CFCS debt module.
Source: Statistics Canada, Canadian Financial Capability Survey (CFCS), 2009.

of other borrowers. These results, together with the higher scores obtained for high debtors, suggest that higher debt is in some way correlated with financial literacy.

However, the association between debt and financial literacy may not be straightforward. For example, it may be that high debtors are more knowledgeable about finances since they tend to have higher incomes (Keown 2011). Any examination of the link between household debt and financial literacy should therefore control for other factors that potentially correlate with financial knowledge.[10] This can be done by estimating a Tobit model, with household debt as a dependent variable and financial literacy variables as independent variables. One advantage of the Tobit model is that it estimates the outcome within a specified range. This is important because the debt distribution is left-censored (meaning that no one can report "negative" debt amounts). Hence, the Tobit model accounts for the fact that a significant portion of the population is "left censored" (i.e., people without any debt). All results are expressed in additional debt dollars that an individual would incur if the independent variable increased by one unit (or, in the case of dummy variables, by how much debt levels vary from the reference category).

When only the financial scores and geographical controls are included in the model (Table 5, Model 1) the estimates suggest a relationship between debt and financial literacy since each unit increase in the financial score variable was associated with a $14,700 increase in debt. However, when household income was included as a variable, the strength of the relationship was reduced (Model 2) to $9,100 with each additional point in the financial score variable. When a full set of controls was included (Model 3), the relationship between financial scores and debt became even weaker—to $5,100 per additional point.[11]

In fact, other variables also had a strong relationship with higher debt levels. Home ownership and household income were both associated with higher debt levels. The debt of homeowners was estimated to be $100,000 above that of renters; similarly, the debt level of those who had at least $100,000 in household income was nearly $60,000 above that of people who had less than $50,000 in household income. An association with higher levels of debt was also found among younger individuals, recent immigrants, highly educated people and employed individuals. Conversely, lower levels of debt were found among older individuals, retired people, and people in families without children.[12]

Another model was estimated using self-assessed financial knowledge variables instead of financial test scores (Table 5, Model 4). In line with the test results, this model revealed a positive relationship between debt and individuals' own assessment of their financial knowledge. Those who said they were knowledgeable about managing household finances held more debt than those who said they were not very knowledgeable. For example, the debt level associated with those who said that they were "very knowledgeable" was

Table 5 Results from estimating a Tobit model of household debt[1]

	Model 1	Model 2	Model 3	Model 4
			$	
Financial score	**14,700**	**9,100**	**5,100**	**...**
Self-assesed financial knowledge				
Not very knowledgeable	...	...	...	ref.
Fairly knowledgeable	...	...	...	8,600
Knowledgeable	...	...	...	16,400
Very knowledgeable	...	...	...	29,100
Household income				
Under $50,000	...	ref.	ref.	ref.
$50,000 to $99,999	...	86,000	18,400	18,400
$100,000 and over	...	157,200	59,500	61,500
Sex				
Men	...	...	15,300	16,100
Women	...	...	ref.	ref.
Age				
18 to 44	...	...	51,800	52,100
45 to 64	...	...	ref.	ref.
65 and over	...	...	-66,100	-71,300
Education				
Less than high school graduation	...	...	ref.	ref.
High school graduation	...	...	9,600	14,100
Some postsecondary/trades/diploma	...	...	26,000	32,600
University degree	...	...	26,200	35,200
Household type				
Unattached	...	...	-52,700	-50,800
Married/common-law without children or no children under 25	...	...	-36,900	-37,000
Married/common-law with youngest child under 25	...	...	ref.	ref.
Lone parents	...	...	2,700	5,400
Others	...	...	-69,800	-74,800
Immigrant status				
Canadian-born	...	...	ref.	ref.
Immigrated before 1999	...	...	23,400	20,200
Immigrated between 1999 and 2009	...	...	33,700	26,100
Labour force status				
Employed	...	...	ref.	ref.
Retired	...	...	-92,600	-95,000
Others	...	...	-36,800	-36,300
Tenure				
Renter	...	...	ref.	ref.
Homeowner	...	...	99,900	102,400

1. Dependent variable: total household debt. The coefficient denotes the difference in debt between the reference group (ref.) and a given characteristic category. All differences were significantly different at the 0.01 level with the exception of that pertaining to "lone parents" in Model 3.

Note: All models also controlled for provincial differences.

Source: Statistics Canada, Canadian Financial Capability Survey, 2009.

$29,100 higher than that for those who said they were "not very knowledgeable." The results were very similar to Model 3 for other variables.

Financial perceptions and attitudes

The CFCS also included questions to gauge the financial perceptions and attitudes of Canadians (Table 6). Questions asked whether the respondent was "good or very good" at keeping track of money, making ends meet, shopping around to get the best financial products, and staying informed on financial issues. The respondents were also asked whether they agreed with a series of statements meant to gauge their interest and attitude vis-à-vis financial matters. Finally, they were asked whether they received financial advice, and whether they ever made a financial decision they later regretted.

Borrowers with the highest levels of household debt (at least $250,000) were more likely to respond that they were good or very good at shopping around to get the best financial products (like loans and insurance rates) and staying informed on financial issues. In addition, they were also more likely to say that they "enjoyed financial matters," "had a clear idea of financial products needed," "knew enough about investments to make the right choices," and "always researched their choices thoroughly"—thereby suggesting that high levels of debt may be associated with a greater interest in finances. On the other hand, 58% of individuals with at least $250,000 in household debt also reported that they had made a financial decision that they later regretted, compared to 45% of those with less than $50,000 in household debt and 36% of those with no debt at all.

Table 6 Percentage of total respondents by attributes on financial variables

	Household debt					
	No debt	Under $50,000	$50,000 to $149,999	$150,000 to $249,999	$250,000 and over	All debtors	All persons[1]
				%			
Good or very good at...							
Keeping track of money	72	66	69	67	68	67	69
Making ends meet	82	75	77	77	80	77	78
Shopping around to get best products	59	61	65	66	69	64	62
Staying informed on financial issues	51	44	48	48	55	47	49
Agree with the following statements							
I enjoy dealing with financial matters	43	39	43	45	49	42	42
I trust professional advisors	52	60	62	62	59	61	58
I get advice from friends and family	40	47	43	47	45	46	44
I got a clear idea of financial products needed	76	72	74	73	78	74	74
I keep a close watch on financial affairs	83	82	82	82	84	82	82
I know enough about investments to make right choices	58	49	54	53	61	53	54
I always research my choices thoroughly	73	71	72	74	78	73	73
Ever regretted financial decision	36	45	50	50	58	49	45
Received financial advice for...							
Retirement planning	17	21	29	29	30	25	23
Children's education	3	8	12	14	18	12	9
Estate planning	6	5	7	9	12	7	7
Insurance	8	15	19	25	27	19	15
Tax planning	10	11	16	17	23	15	13
General financial planning	22	24	30	31	37	29	26
Didn't use any advice	63	55	48	44	40	50	54

1. Excludes those who did not answer the CFCS debt module.
Source: Statistics Canada, Canadian Financial Capability Survey (CFCS), 2009.

With regard to financial advice, individuals with debt of at least $250,000 were also more likely to seek financial advice on financing children's education (18% versus 8% for those with debt less than $50,000), insurance (27% versus 15%), tax planning (23% versus 11%) and general financial planning (37% versus 24%). They were also less likely to report that they didn't seek any advice at all, although 40% said they didn't receive advice (compared to 63% among non-debtors).

Financial attitudes may also be correlated with other sociodemographic characteristics. Logit models were estimated to study the association between debt and key financial attitude variables: whether they regretted making some decisions, and whether they received financial advice (data not shown). As the descriptive results suggested, higher levels of debt corresponded to a higher likelihood of receiving financial advice and with financial regrets—even when other variables (like household income and education) were taken into account.

Conclusion

Increases in aggregate household debt burdens since the 1980s have renewed interest in household debt and underscored the risks to household balance sheets due to rising interest rates or falling asset prices. Given this situation, understanding the characteristics of borrowers, particularly those with higher levels of debt, facilitates a greater understanding of the risks in the household sector. In particular, since holding debt often involves a set of choices, understanding whether people with high levels of debt have corresponding levels of financial literacy is important.

As noted in earlier studies, the incidence and level of household debt are higher in certain population groups: younger homeowners, young families with children, the better-educated, and those with higher household incomes. Indeed, over 60% of household debt was held by those under 45 years of age, and nearly one-half was held by couples with children.

Debt, however, was not equally distributed *within* groups. Although they held a small portion of the total, household debt was more unequally distributed in populations that are considered more economically vulnerable, such as the less-educated, unattached individuals and renters. This is consistent with previous research, which showed that these groups were more likely to experience financial insecurity (Hurst 2011). Conversely, debt was more equally distributed among the better-educated, couples with children, people with higher household incomes, and mortgagees.

Although previous research found little evidence of a relationship between high debt ratios and financial literacy (Hurst 2011), this study found that both financial literacy and self-assessed financial knowledge were associated with higher absolute debt levels, even when other characteristics had been taken into account. However, other characteristics—like home ownership and household income—were also strongly associated with higher debt loads. In addition to having better financial knowledge, people with a larger household debt load (defined as those who had at least $250,000 in household debt) were more likely to perceive themselves as good financial managers, and were more likely than others to seek financial advice on a variety of financial matters.

Perspectives

Notes

1. For other definitions of financial literacy used in recent literature, see Remund (2010). Also, the October 2011 issue of the *Journal of Pension Economics and Finance* contains papers discussing financial literacy for a number of countries around the world.
2. This is consistent with estimates found in other reports (Sauvé 2011).
3. Marshall (2011) also finds higher levels of debt among high-income seniors. Higher levels of collateral assets and favourable lending conditions may also influence the borrowing practices of high-income households.
4. Among homeowners without a mortgage, their debt was mostly related to lines of credit and credit cards.
5. Not all individuals have equal access to credit markets as financial lenders ration credit. This also helps explain why lower-income groups and renters have smaller debt loads than others.
6. The 2009 CFCS collected information on indebtedness but not on amounts outstanding on the six types of consumer debt specified above.
7. A Gini coefficient is a measure of statistical dispersion generally used to measure the inequality of a distribution. The value of the Gini coefficient always lies between 0 and 1. A value closer to 1 indicates greater concentration (more inequality). Since the Gini coefficient is insensitive to the size of the variable of interest, it can be used to compare the dispersion of household debt relative to household income.

Appendix CFCS financial quiz questions

A unique feature of the Canadian Financial Capability Survey is a series of 14 questions that were designed to test respondents' knowledge of financial principles and practices. The questions and answers are the following:

1. **If the inflation rate is 5% and the interest rate you get on your savings is 3%, will your savings have at least as much buying power in a year's time?**
   a) Yes
   b) No

2. **A credit report is... ?**
   a) A list of your financial assets and liabilities
   b) A monthly credit card statement
   c) A loan and bill payment history
   d) A credit line with a financial institution

3. **Who insures your stocks in the stock market?**
   a) The National Deposit Insurance Corporation
   b) The Securities and Exchange Commission
   c) The Bank of Canada
   d) No one

4. **True or false...**
   By using unit pricing at the grocery store, you can easily compare the cost of any brand and any package size.
   a) True
   b) False

5. **If each of the following persons had the same amount of take home pay, who would need the greatest amount of life insurance?**
   a) A young single woman with two young children
   b) A young single woman without children
   c) An elderly retired man, with a wife who is also retired
   d) A young married man without children

6. **If you had a savings account at a bank, which of the following statements would be correct concerning the interest rate that you would earn on this account?**
   a) Sales tax may be charged on the interest that you earn
   b) You cannot earn interest until you pass your 18th birthday
   c) Earnings from savings account interest may not be taxed
   d) Income tax may be charged on the interest if your income is high enough

7. **Inflation can cause difficulty in many ways. Which group would have the greatest problem during periods of high inflation that lasts several years?**
   a) Young working couples with no children
   b) Young working couples with children
   c) Older working couples saving for retirement
   d) Older people living on fixed retirement income

8. **Lindsay has saved $12,000 for her university expenses by working part-time. Her plan is to start university next year and she needs all of the money she saved. Which of the following is the safest place for her university money?**
   a) Corporate bonds
   b) Mutual Funds
   c) A bank savings account
   d) Locked in a safe at home
   e) Stocks

9. **Which of the following types of investment would best protect the purchasing power of a family's savings in the event of a sudden increase in inflation?**
   a) A twenty-five year corporate bond
   b) A house financed with a fixed-rate mortgage
   c) A 10-year bond issued by a corporation
   d) A certificate of deposit at a bank

10. **Under which of the following circumstances would it be financially beneficial to borrow money to buy something now and repay it with future income?**
    a) When something goes on sale
    b) When the interest on the loan is greater than the interest obtained from a savings account
    c) When buying something on credit allows someone to get a much better paying job
    d) It is always more beneficial to borrow money to buy something now and repay it with future income

11. **Which of the following statements is <u>not</u> correct about most ATM (Automated Teller Machine) cards?**
    a) You can get cash anywhere in the world with no fee
    b) You must have a bank account to have an ATM card
    c) You can generally get cash 24 hours-a-day
    d) You can generally obtain information concerning your bank balance at an ATM machine

12. **Which of the following can hurt your credit rating?**
    a) Making late payments on loans and debts
    b) Staying in one job too long
    c) Living in the same location too long
    d) Using your credit card frequently for purchases

13. **What can affect the amount of interest that you would pay on a loan?**
    a) Your credit rating
    b) How much you borrow
    c) How long you take to repay the loan
    d) All of the above

14. **Which of the following will help lower the cost of a house?**
    a) Paying off the mortgage over a long period of time
    b) Agreeing to pay the current rate of interest on the mortgage for as many years as possible
    c) Making a larger down payment at the time of purchase
    d) Making a smaller down payment at the time of purchase

Answers

1) b	4) a	7) d	10) c	13) d
2) c	5) a	8) c	11) a	14) c
3) d	6) c and d	9) b	12) a	

Appendix CFCS financial quiz questions (concluded)

Table 7 shows the proportion of those who correctly answered questions within debt-size categories.

For some of the 14 questions, the difference between categories of debt size was not very large but differences were larger for other categories. For instance, 56% of those in the highest category of debt size (at least $250,000) correctly answered Question 2 on the credit report, while only 46% of those with lower debt levels (less than $50,000) did so. Question 7 on inflation also showed relatively large differences in the proportions of correct answers given between the larger and lower debt groups (63% versus 53%), as did Question 11 on ATM machines (84% versus 73%). Other questions showing notable differences between higher and lower debtors included Question 3 about the insurance of stocks, Question 8 about the safety of placements, Question 9 about options to protect the loss of purchasing power, and Question 13 about the factors influencing the interest rate of a loan. In all cases, the high debtors fared better than those with lower levels of debt. More information about the CFCS financial capability questions can be found in McKay (2011).

Table 7 Proportion who correctly answered financial quiz question

	Household debt					
	No debt	Under $50,000	$50,000 to $149,999	$150,000 to $249,999	$250,000 and over	All debtors	All persons[1]
Question				%			
1	60	67	72	70	73	69	66
2	29	46	51	53	56	49	42
3	32	34	36	38	42	36	35
4	66	71	73	76	77	73	71
5	71	77	83	80	79	80	77
6	55	60	67	63	65	63	60
7	48	53	57	60	63	57	54
8	57	64	65	67	71	66	63
9	31	39	42	46	47	42	38
10	19	27	32	31	29	29	26
11	55	73	79	79	84	77	69
12	77	90	93	93	92	92	87
13	59	69	74	76	76	72	68
14	76	88	92	91	91	90	85

1. Excludes those who did not answer the CFCS debt module.
Source: Statistics Canada, Canadian Financial Capability Survey (CFCS), 2009.

8. Accordingly, Hurst (2011) found that individuals in these categories were more likely to have a higher total debt-service ratio, a higher debt-to-pre-tax household income ratio, and a higher debt-to-asset ratio, even after accounting for all other socioeconomic characteristics. Hurst limited his population to those under age 65.

9. See Department of Finance Canada (2010) for a discussion on the importance of financial literacy.

10. In addition, there is a possibility of causality between debt and financial literacy but the direction of causality is not clear. Debt may motivate borrowers to become more knowledgeable about their finances. Alternatively, increased financial capability may affect the type or level of debt. This paper does not attempt to draw any causal inferences but focuses on associations.

11. A referee pointed out that questions 9 and 10 on the financial quiz could have more than one correct answer. Additional models were estimated by recalculating the financial score in two ways: (a) by having multiple correct answers for those two questions; and (b) by excluding those two questions. The conclusions did not change.

12. Models were also estimated using quartiles of financial scores instead of numbers, and quartiles of income instead of the three groups. The conclusions did not change.

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